Profectis
Technischer Kundendienst
QUELLE.

Serviceunterlage

Produkt-Nr.:
518.823-0
Typ/Privileg-Nr.:
8473
weiss

Waschautomat

```
UTS-Nr.:          999         QUELLE
Best.Nr.:         5188230/01
Ger.Bez.:         WASCHAUTOMAT WEISS

GKz:                G   GERAET
WGT:              370   WASCHVOLLAUTOMATEN-BULLAUGEN
KD-Sektor:          E   EL-GROSSGERAETE
BaumNr.:           01   WASCHAUTOMAT
Klassierung:       WA   WASCHMASCHINE
IFW-FehlerGru.:   103   NAESSEGERAETE
Type/Privileg/Universum.Nr 8473
Beschreibung
VK-Preis: 1399.00

Serviceart:             1
Garantie fuer Kunden   12 Monate
Sondervereinbarungen:   0   SIEHE SERVICEART

Garantiereparatur      0004063  PROFECTIS GMBH
Sondervereinbarungen:        0  SIEHE SERVICEART

--------------------------------------------------------------------------------
Katalog                                     Seite
  Erst  012 HAUPTKATALOG F/S 2001            0000
  Letzt 012 HAUPTKATALOG F/S 2001            0000

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Geraete Info:

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Technische Daten:

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Fehler:

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WEST System                    Stuecklistendruck                  V961227jol
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61.10.10 11:72,13

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  Erst  012 HAUPTKATALOG F/S 2001           0000
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Geraete Info:

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Technische Daten:

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Fehler:

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Stückliste:
1...5...9. KZ IdentNr   Bezeichnung                             Stk Position im Bild    Herstellercode
1           G   518823/01 WASCHAUTOMAT WEISS                    001
 2          E  2605608     GEHAEUSE                             001 A100                3091FR0045N
 2          E  2605616     ARBEITSPLATTE                        001 A110                3301ER1001A
 2          E  2284693     ARBEITSPLATTE HALTER (PILZ)          003 A141                4930ER4001A
 2          E  2605640     TUER KPL.                            001 A150                3581ER1002D
 2          E  2605574     BODENPLATTE                          001 A200                3040FR0049A
 2          E  2605723     FUSSPLATTE                           004 A201                4810FR4136A
 2          E  2605855     SCHRAUBFUSS                          004 A220                5413FR4145B
 2          E  2284362     ZULAUFSCHLAUCH                       001 A276                3W40102L
 2          E  2605624     SOCKELBLENDE                         001 A300                3550FR1166A
 2          E  2605806     KLAPPE F.SOCKELBLENDE                001 A310                5006FR3179A
 2          E  2605889     REGEL-UEBERWACHUNG                   001 A410                6600FA1704S
 2          E  2605871     ELEKTROZUELTUNG 230V                 001 A430                6411ER1002J
 2          E  2605897     TUERVERRIEGELUNG                     001 A440                6601ER1001A
 2          E  2605905     AUSGABEELEKTRONIK                    001 A450                6871EC1024K
 2          E  2605913     EINGABEELEKTRONIK                    001 F110                6871EC2005B
 2          E  2605921     FLACHBANDKABEL                       001 F130                6877EC2001A
 2          E  2605939     MOTORKABEL                           001 F140                6877ER1007A
 2          E  2605848     VENTIL 2FACH                         001 F160                5220FR1251A
 2          E  2605657     BEDIENBLENDE                         001 F210                3721ER1018A
 2          E  2605665     WASCHMITTELBEHAELTER KPL.            001 F220                3721ER1019A
 2          E  2605756     WASCHMITTELKAMMER KPL.               001 F300                4925ER1001G
 2          E  2605715     EINSPUELSCHLAUCH                     001 F310                4738FR3065A
 2          E  2605814     ABLAUFSCHLAUCH                       001 F430                5214FD3663C
 2          E  2605822     RE-SCHLAUCH                          001 F440                5214FR3188A
```

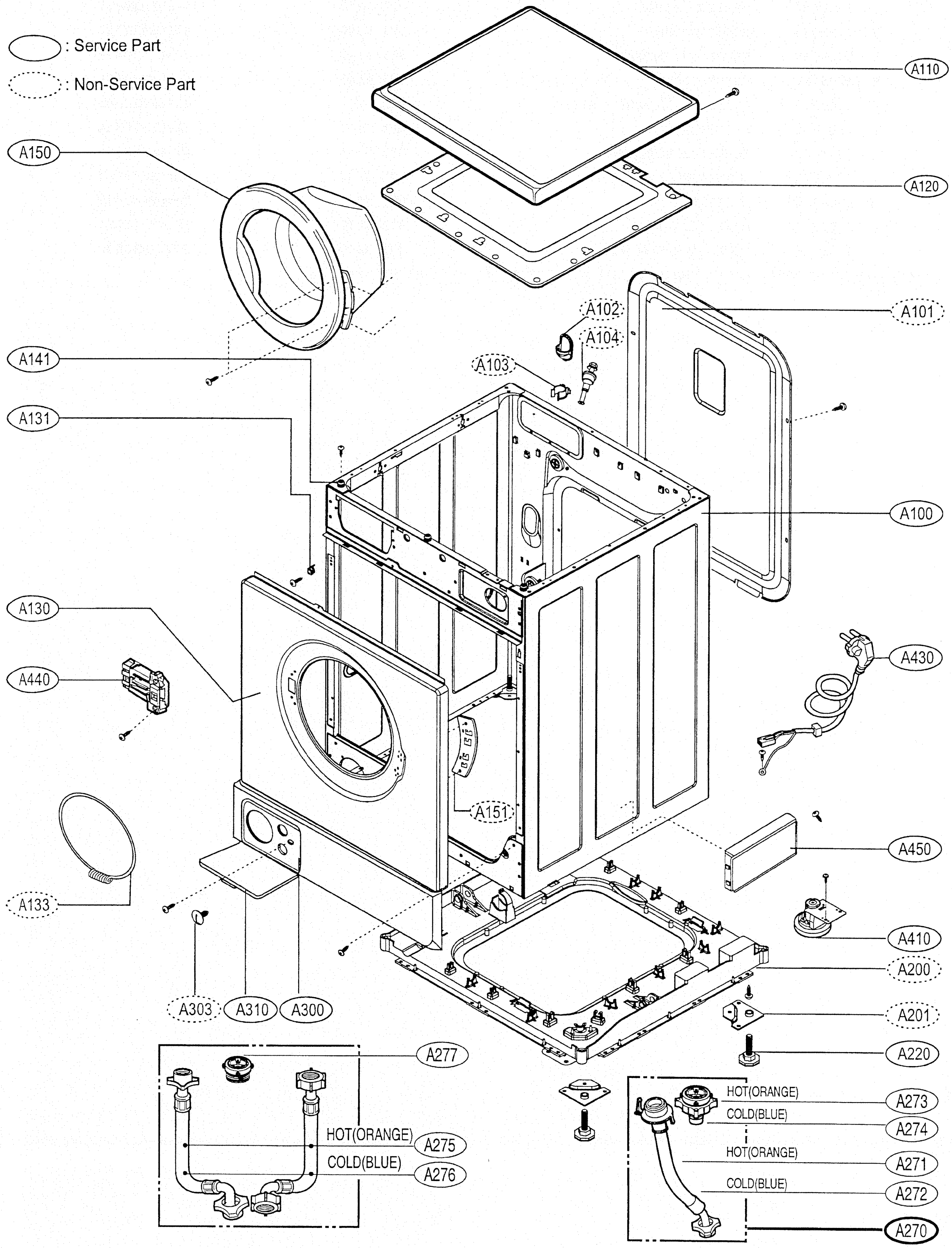
Stueckliste:

1...5...9.	KZ	IdentNr	Bezeichnung	Stk	Position im Bild	Herstellercode
2	E	2605582	BOTTICH HINTEN	001	K105	3045ER0002A
2	E	2605632	BOTTICH VORN	001	K140	3551ER0001A
2	E	2605863	NTC-KLIXON	001	K310	6322FR2046C
2	E	2284867	HEIZUNG	001	K320	5301FR1158D
2	E	2605699	ABLAUFPUMPE KPL.	001	K340	4681EA2002B
2	E	2605681	STARTOR-MOTOR	001	K350	4417FA1994E
2	E	2605673	ROTOR-MOTOR	001	K360	4413EA1002A
2	E	2605780	FEDER-AUFHAENGUNG	001	K410	4970FR2084H
2	E	2605764	FEDER-LAGER	003	K411	4930FR3040A
2	E	2605772	FEDER-AUFHAENGUNG SET	002	K420	4970FR2084G
2	E	2605798	FALTENBALG	001	K510	4986ER1001A
2	E	2605707	SCHLAUCH BOTTICH	001	K520	4738FR1145A
2	E	2605731	SPANNRING	001	K530	4861ER2001B
2	E	2605590	LUFTFALLE	001	K540	3054FR3134J
2	E	2605830	NIVEAUSCHLAUCH	001	K550	5214FR4125J
2	E	2605749	STOSSDAEMPFER SET	002	K610	4901FR2080A

**************************** ENDE der Liste ****************************

10. EXPLODED VIEW AND PART LIST

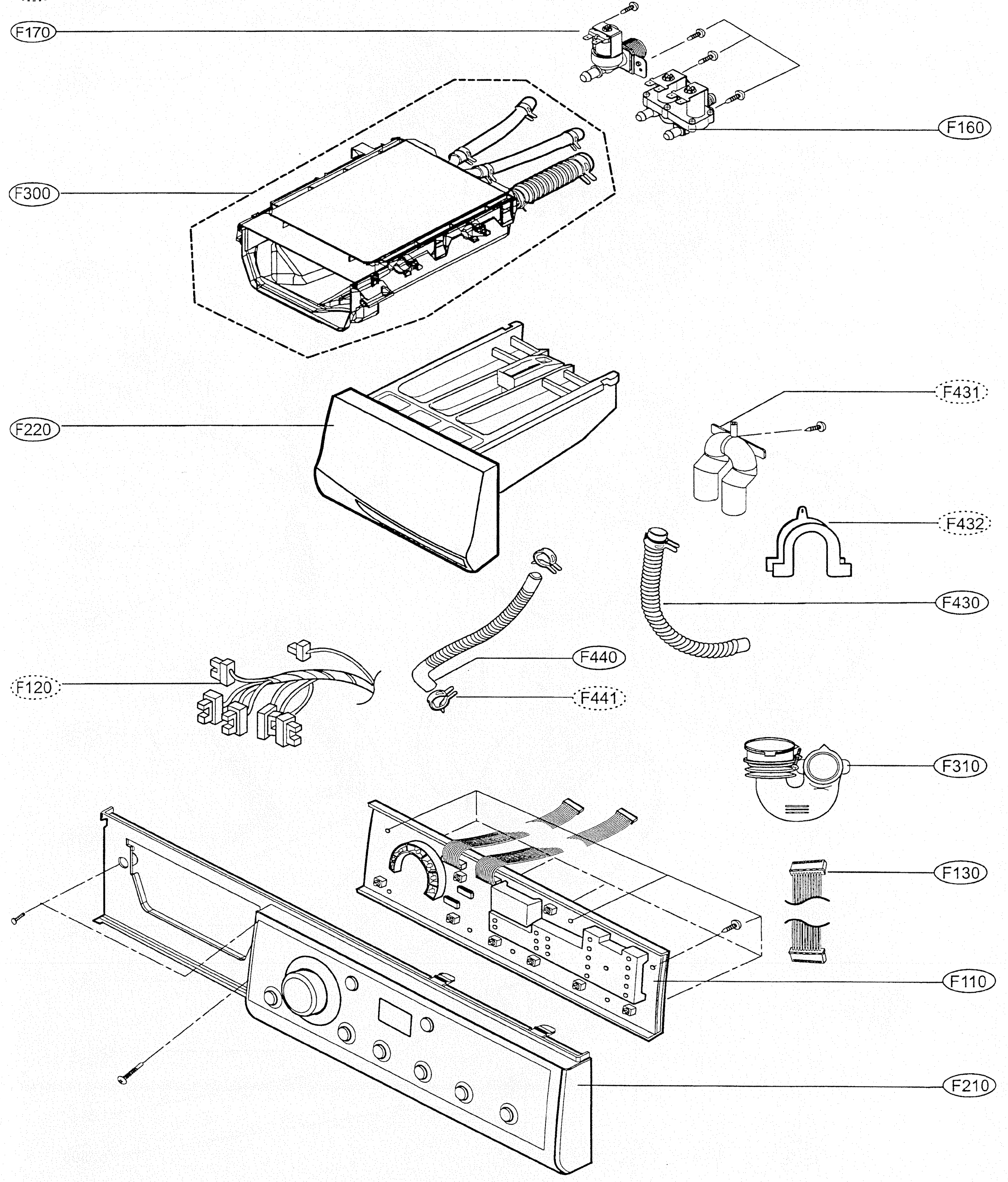
10-1.THE EXPLODED VIEW OF CABINET ASSY


: Service Part
: Non-Service Part
A110
A120
A150
A102
A104
A101
A103
A141
A131
A100
A430
A130
A440
A151
A450
A133
A410
A200
A303
A310
A300
A201
A220
A277
HOT(ORANGE)
A273
COLD(BLUE)
A274
HOT(ORANGE)
A275
COLD(BLUE)
A276
HOT(ORANGE)
A271
COLD(BLUE)
A272
A270

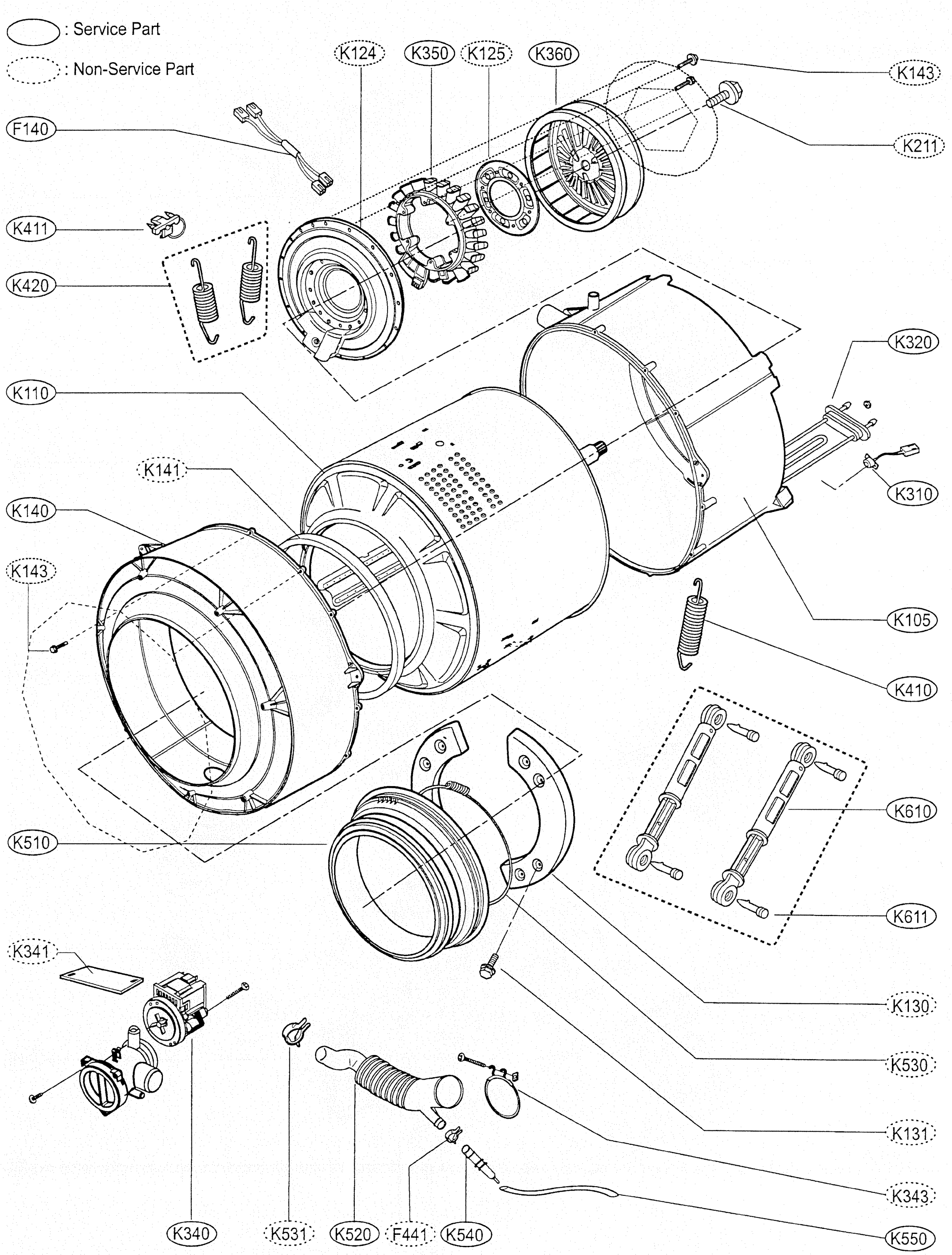
10-2 THE EXPLODED VIEW OF CONTROL PANEL & DISPENSER ASSY

○ : Service Part

◌ : Non-Service Part


F170
F160
F300
F220
F431
F432
F430
F440
F120
F441
F310
F130
F110
F210

10-3 THE EXPLODED VIEW OF DRUM & TUB ASSY


: Service Part
: Non-Service Part
K124
K350
K125
K360
K143
K211
F140
K411
K420
K320
K110
K310
K141
K140
K143
K105
K410
K610
K510
K611
K341
K130
K530
K131
K343
K340
K531
K520
F441
K540
K550

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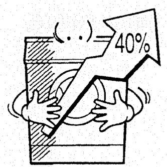
1. SPECIFICATION

ITEM		WD-1480FD
POWER SUPPLY		220-240V~, 50Hz
PRODUCT WEIGHT		65kg
ELECTRICITY CONSUMPTION	WASHING	230W
	SPIN(1400rpm)	440W
	DRAIN MOTOR	38W
	WASH HEATER	2000W
REVOLUTION SPEED	WASH	45rpm
	SPIN	No spin/600/800/1000/1400 rpm
OPERATION WATER PRESSURE		0.3-10kgf/㎠ (30-1000kPa)
CONTROL TYPE		Electronic
WASH CAPACITY		6.5kg
		Synthetic (4.0kg), Delicate (3.0kg), Wool (2.0kg), Hand Wash(2.0kg)
DIMENSION		600mm(W) × 600mm(D) × 850mm(H)
WASH PROGRAM		Whites, Coloureds, Synthetic, Delicate, Wool, Hand Wash, Rapid
OPTION FUNCTION	RESERVATION	From 3 hours to 19 hours
	ECO	Available
RINSE		Super, Normal, Hold
DOOR SWITCH TYPE		Bi-Metal type
WATER LEVEL		9 steps (by sensor)
SENSING OF THE LAUNDRY AMOUNT		Adapted
FUZZY LOGIC		Adapted
DISPLAY OF THE REMAINING TIME		Adapted
ERROR DIAGNOSIS		9 items
POWER AUTO OFF		Adapted
CHILD LOCK		Adapted
AUTO RESTART		Adapted
RAPID		Adapted

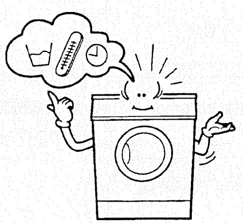
2. FEATURES & TECHNICAL EXPLANATION

2-1.FEATURES



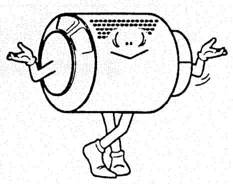
■ Jumbo drum

LG's jumbo drum can wash about 30% more load than conventional washing machine. A bigger drum improves the wash performance.



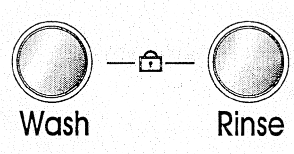
■ More economical by Intelligent Wash System

Intelligent Wash System detects the amount of load and water temperature, and then determines the optimum water level and washing time to minimize energy and water consumption.



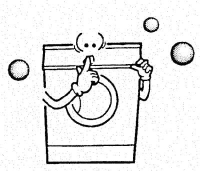
■ Direct Drive system

The advanced Brushless DC motor rotates the Drum directly without belt and pulley.



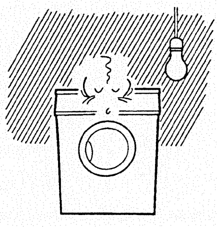
■ Child-Lock

The Child-Lock system has been developed to prevent children from pressing any button to change the program during operation.



■ Low noise speed control system

By sensing the amount of load and balance, evenly distributes load to minimize the spinning noise level.

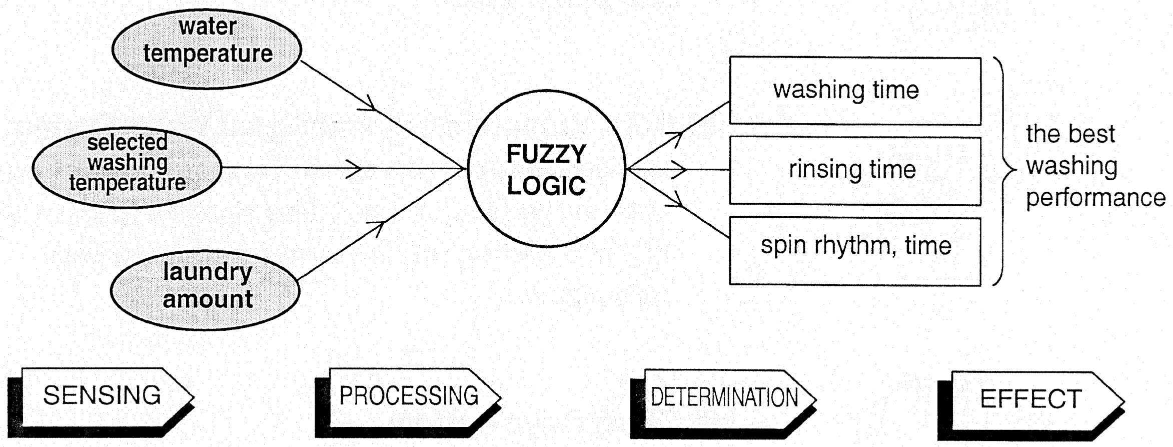


■ Auto Restart

Although the washing machine is turned off by a power failure, it restarts automatically in its stopped process when power is supplied again. And it will be the same when the machine unplugged in operation is plugged in again.

2-2.DETERMINE WASHING TIME BY FUZZY LOGIC

To get the best washing performance optimal time is determined by sensing of water temperature, selected washing temperature and laundry amount.


water temperature
selected washing temperature
laundry amount
FUZZY LOGIC
washing time
rinsing time
spin rhythm, time
the best washing performance
SENSING
PROCESSING
DETERMINATION
EFFECT

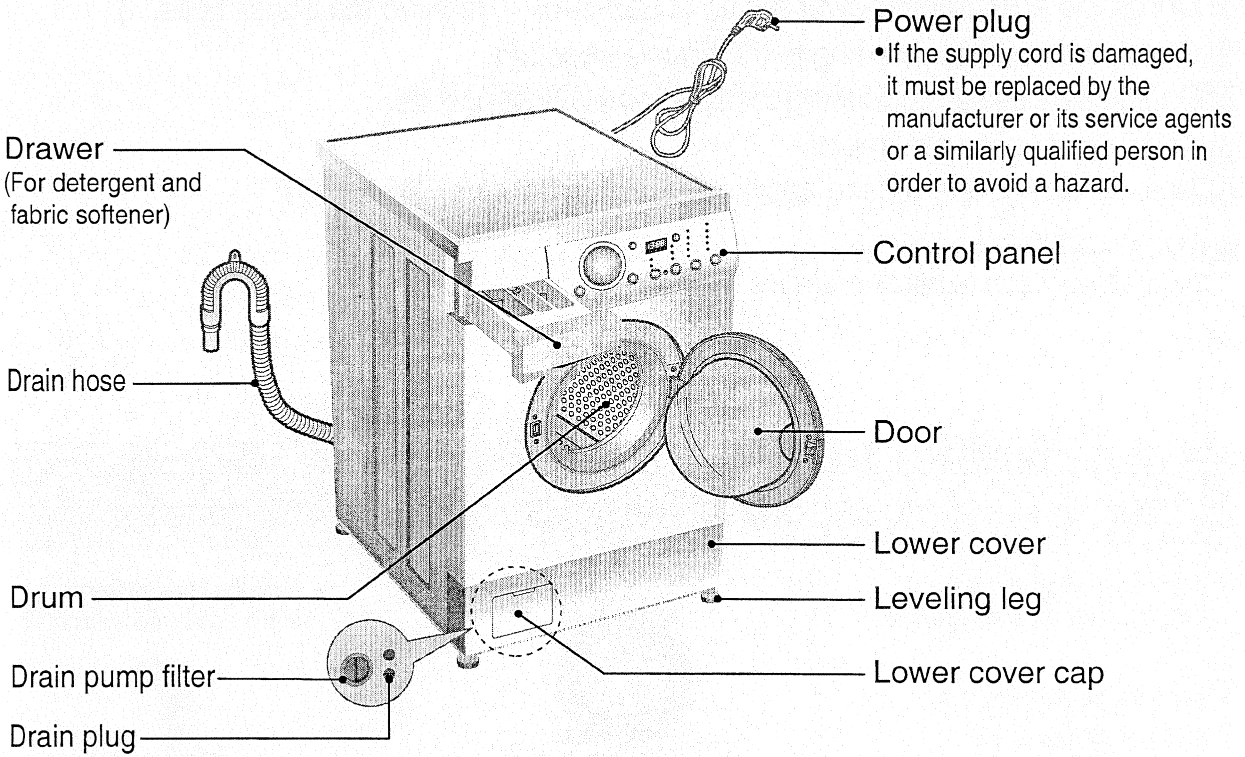
2-3.WATER LEVEL CONTROL

- This model adopts a pressure sensor which can sense the water level in the tub.
- Water supply is stopped when the water level to the preset level, then washing program proceeds.
- Spinning does not proceed until the water in the tub reduces to a certain level.

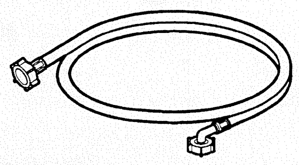
2-4.THE DOOR CAN NOT BE OPENED

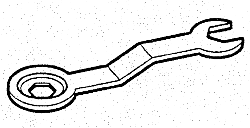
- While program is operating.

3. PARTS IDENTIFICATION


Power plug
• If the supply cord is damaged, it must be replaced by the manufacturer or its service agents or a similarly qualified person in order to avoid a hazard.
Drawer
(For detergent and fabric softener)
Control panel
Drain hose
Door
Lower cover
Drum
Leveling leg
Drain pump filter
Lower cover cap
Drain plug

■ACCESSORIES


Inlet hose(1EA) : Cold

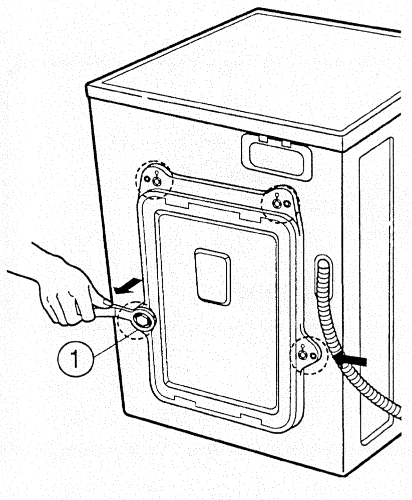
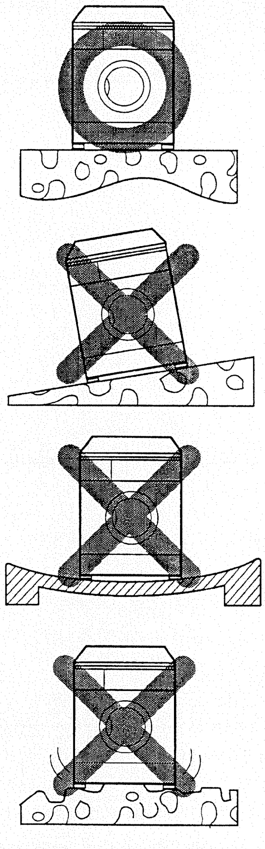
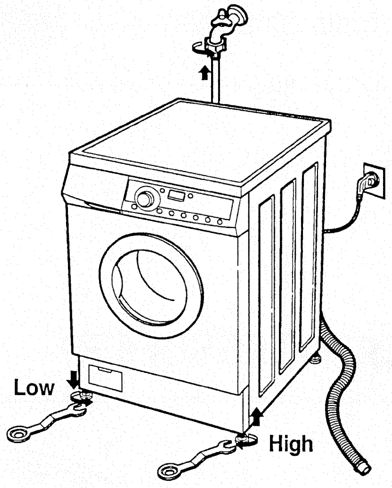

Spanner

4. INSTALLATION

1. Before servicing ask troubles of customers
2. Check the adjustment(power supply is 220-240V~, remove the transit bolts....)
3. Check the troubles referring to the trouble shooting.
4. Decide service steps referring to disassembly instructions.
5. And then, service and repair.
6. After servicing, operate the appliance whether it works O·K or NOT.

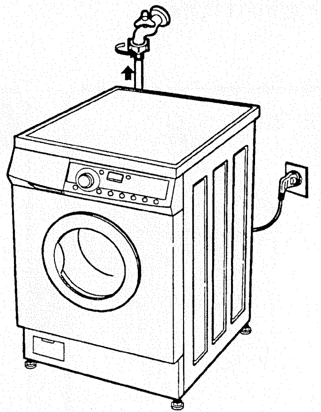
■ STANDARD INSTALLATION

The appliance should be installed as follows.

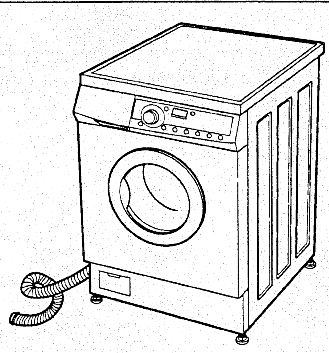
REMOVE THE TRANSIT BOLTS	INSTALL THE APPLIANCE ON FLAT AND FIRM SURFACE	ADJUST THE HORIZONTAL
• Remove the transit bolts (4EA: ①)with supplied spanner. • Keep the transit bolts and spanner for future use. • Insert the 4 caps provided into the hole 		• Turn the leveling feet to set the appliance horizontally.  • The appliance goes up by rotating the feet clockwise. • The appliance come down by rotating the feet counter clockwise.

■ HOW TO CONNECT INLET HOSE

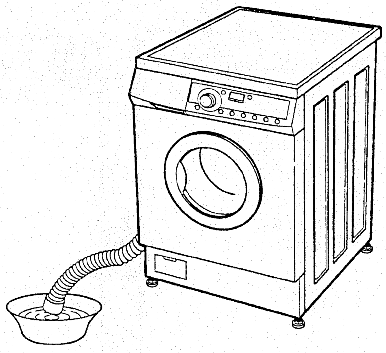
- Check that the rubber packing is inside of the valve connector.
- Connect the inlet hose firmly to prevent leak.



■ CONNECT DRAIN HOSE



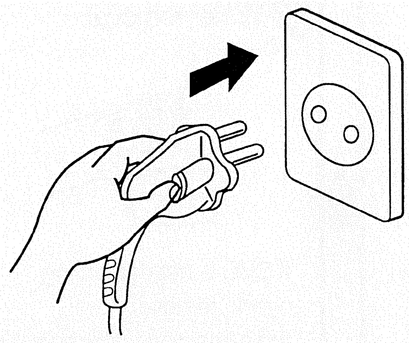
· Make sure that the hose is not twisted.



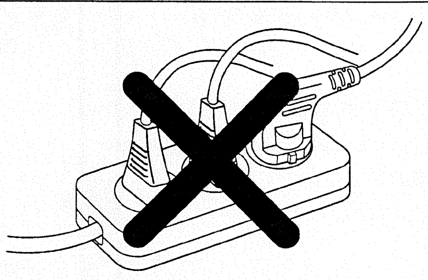
· Avoid submerging the end of the hose.

※ The drain hose should be placed under 100cm from the floor.

■ CONNECT POWER PLUG



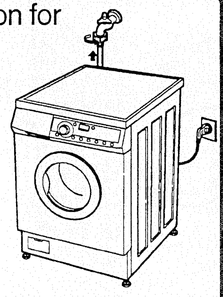
· Connect the power plug to the wall outlet.



· Avoid connecting several electric devices,
It may be the cause of the fire.

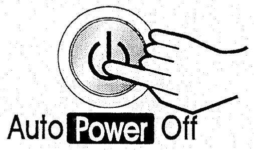
7 TEST OPERATION

1 Preparation for washing.

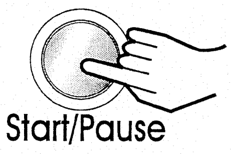


- Connect the power plug to the outlet.
- Connect the inlet hose.

2 Press the POWER button.

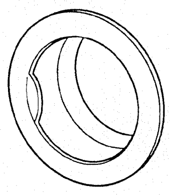


3 Press the Start/Pause button.



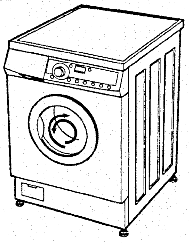
- In case of Coloreds program.

4 Check the water supply.



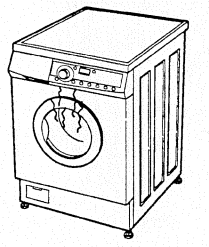
- Check if water is supplied through the detergent dispenser.

5 Check automatic reverse turn.



- Check if the drum rotates clockwise and counterclockwise.

6 Check the water heating.

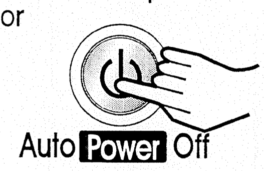


- Press the Temp. button and the present temperature will be displayed.

7 Check drain and spin

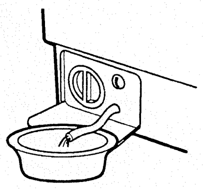
- Turn off Wash and Rinse after pressing the Start/Pause button and start the machine again.
- Check drain and spin.

8 Power off and open the door



- Power off and then power on.
- Check if the door can be opened after 3 minutes.

9 Water removal



- If SVC is needed during check, remove the remaining water by pulling out the hose cap.

5. OPERATION

Eco

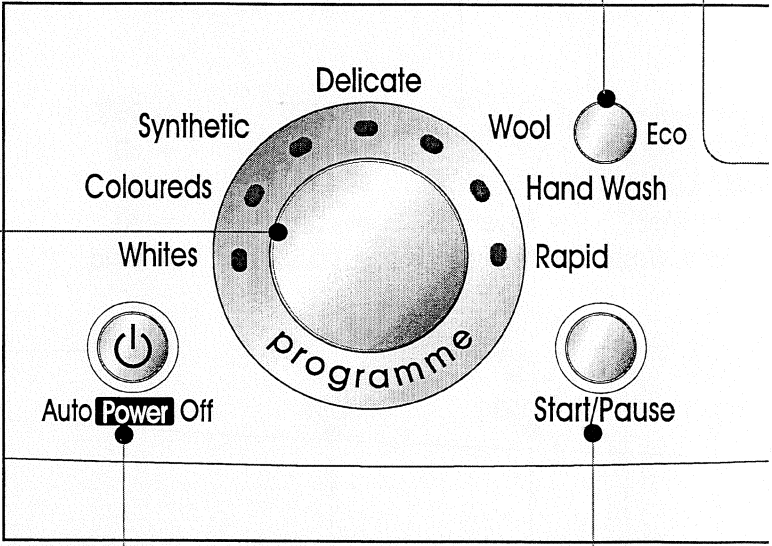
- It is possible in Whites, Coloureds, Synthetic courses when 95℃ or 60℃.

LED display

- Display the estimated remaining time (Hour : Minute) to finish.
- In case of abnormal operation, error indications are displayed. (IE, OE, UE, dE, tE, FE, PE, CE, LE)
- See trouble shooting guide.

Wash program selector

- 7 program can be set depending on the type of the laundry.
- If the power button is pressed, Whites program is automatically set.
- By turning the dial, [Whites ⇨ Coloreds ⇨ Synthetic ⇨ Delicate ⇨ Wool ⇨ Hand Wash ⇨ Rapid] can be selected. (The opposite is possible)


Delicate
Synthetic
Wool
Eco
Coloureds
Hand Wash
Whites
Rapid
Programme
Auto Power Off
Start/Pause

(Power) button

- Press the button to turn power on and off.
- Press the button to cancel the delay finish.

Start/Pause button

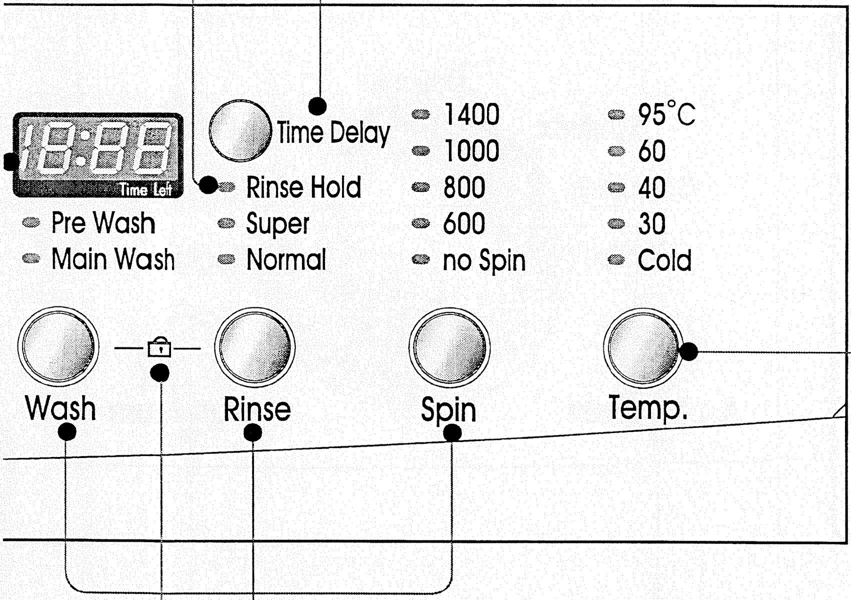
- Use the button to start or pause wash cycle.
- The power turns off automatically 4 minutes after the pause button is pressed.

Rinse Hold

- If you desire to leave fabrics in the machine without spinning after rinse to prevent them getting wrinkled, you may select Rinse Hold by pressing the Rinse button.
- To drain and spin, press the Rinse button to turn off the Rinse Hold lamp.

Time Delay

- Press the button when delayed washing is needed.
- When the button is pressed, [3:00]is displayed, maximum delay of [19:00] hours can be set.
- Each press advances time delay by the hour.
- Use [Power] button to cancel [Time Delay]
- [Time Delay] means the time required from the present to the completion of washing.



Water temperature selector

- Press the button to select water temperature.
- Whites: 95°C ⇨ 40°C ⇨ 60°C
- Coloureds, Synthetic: 60°C ⇨ Cold ⇨ 30°C ⇨ 40°C
- Delicate, Wool, HandWash, Rapid: 40°C ⇨ Cold ⇨ 30°C.
- 95°C is selected for Whites only.
- By pressing the button during operating the washer, the present temperature is displayed.

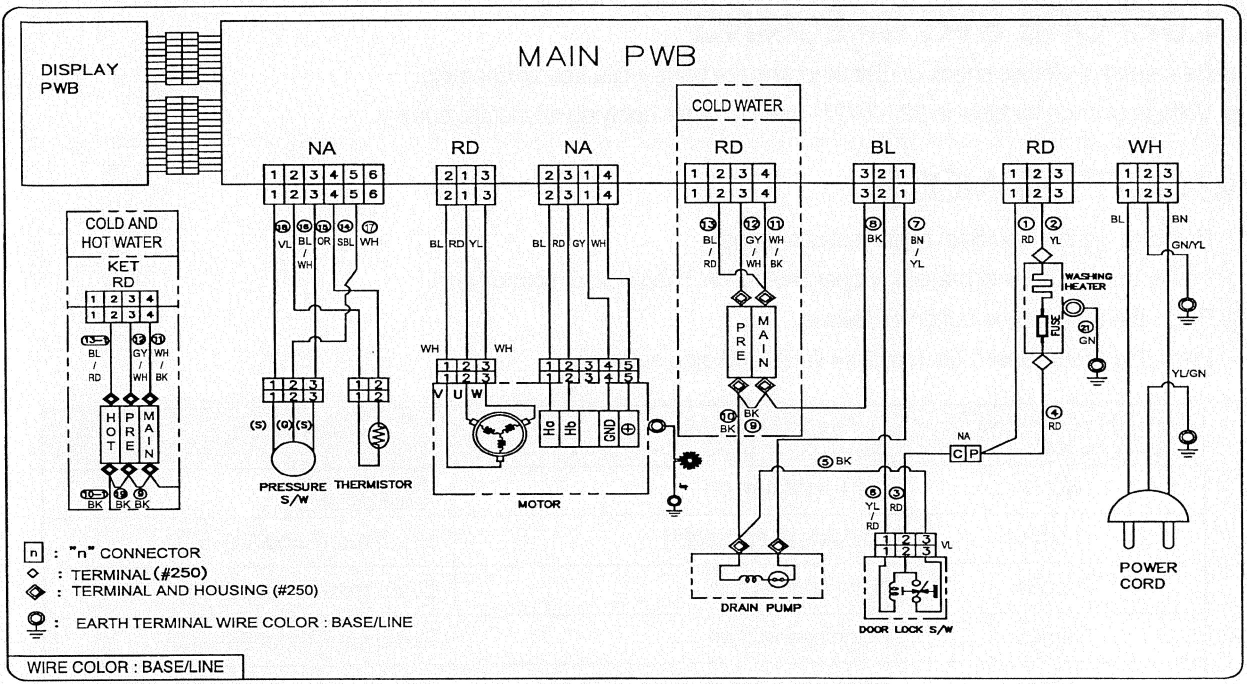
Child - lock

- Child Lock system can be set and canceled by pressing both [Wash] and [Rinse] button simultaneously more than 2 seconds.
- Once Child Lock is set, all buttons are inoperable.
- Child Lock system can be set anytime even during Power-off, on pause and operation.
- It is automatically cancelled when an operational error occurs and when the cycle ends.

For manual wash, rinse and spin speed

- Use these buttons to change wash/rinse/spin.
- When lamp is off, no selection has been made.
- Prewash is available for Whites, Coloreds, Synthetic.

6. WIRING DIAGRAM / PROGRAM CHART


MAIN PWB
DISPLAY PWB
COLD WATER
NA
RD
NA
RD
BL
RD
WH
COLD AND HOT WATER
KET RD
HOT
PRE
MAIN
BL / RD
GY / WH
WH / BK
BK
VL
BL / WH
OR
SBL
WH
BL
RD
YL
GY
PRESSURE S/W
THERMISTOR
MOTOR
U
V
W
Hc
Hb
GND
BN / YL
WASHING HEATER
FUSE
GN
GN/YL
YL/GN
NA
CP
YL / RD
DRAIN PUMP
DOOR LOCK S/W
POWER CORD
n : "n" CONNECTOR
◇ : TERMINAL (#250)
◈ : TERMINAL AND HOUSING (#250)
EARTH TERMINAL WIRE COLOR : BASE/LINE
WIRE COLOR : BASE/LINE

PROGRAM CHART(WD-1480FD)　　* Water Supply : W·S　　* Intermittent Spin : I·S　　* Disentangle : D·T

CYCLE / COURSE	Washing										Rinse																Spin			END	AUTO OFF	Normal Working Time (Hour:Minute)
	Pre				Main						Normal (Hold)												Extra (Hold)									
						Washing		Staycooling			1				2				3				4									
STEP	W·S	Washing	Drain	I·S	W·S	Heating	Washing	W·S	Rinsing	Drain	Drain	I·S	W·S	Rinsing	Drain	I·S	W·S	Rinsing	Drain	I·S	W·S	Rinsing	Drain	I·S	W·S	Rinsing	Drain	Spin	D·T			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	20	20	
Time (SEC)	120	MIN	60	300	120		MIN	120	60	60	60	300	120	360	60	300	120	360	60	300	120	360	60	300	120	360	60	600	120	20	20	
Coloreds	▨	8 ▨	▨	▨	■	■	60 ■ 96	╳	╳	╳	■	■	■	■	■	■	■	■	■	■	■	■	▨	▨	▨	▨	■	■	■	■	■	About 2:43
Whites	▨	8 ▨	▨	▨	■	■	1 ■ 40	■ 3	■ TIMES	■	■	■	■	■	■	■	■	■	■	■	■	■	▨	▨	▨	▨	■	■	■	■	■	About 2:47
Synthetic	▨	8 ▨	▨	▨	■	■	23 ■ 59	╳	╳	╳	■	■	■	■	■	■	■	■	■	■	■	■	▨	▨	▨	▨	■	■	■	■	■	About 2:12
Rapid	╳	╳	╳	╳	■	▨	■ 12	╳	╳	╳	■	■	■	■	■	■	■	■	▨	▨	▨	▨	▨	▨	▨	▨	■	■	■	■	■	About 1:01
Delicate	╳	╳	╳	╳	■	▨	1 ■ 29	╳	╳	╳	■	■	■	■	■	■	■	■	■	■	■	■	▨	▨	▨	▨	■	■	■	■	■	About 1:15
Wool	╳	╳	╳	╳	■	▨	1 ■ 23	╳	╳	╳	■	■	■	■	■	■	■	■	▨	▨	▨	▨	▨	▨	▨	▨	■	■	■	■	■	About 1:09
HandWash	╳	╳	╳	╳	■	▨	1 ■ 29	╳	╳	╳	■	■	■	■	■	■	■	■	▨	▨	▨	▨	▨	▨	▨	▨	■	■	■	■	■	About 1:15
Washing	▨	8 ▨	▨	▨	■	■	60 ■ 96	╳	╳	╳	■	■	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	About 1:52
Rinsing	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	■	■	■	■	■	■	■	■	■	■	▨	▨	▨	▨	■	╳	╳	■	■	About 39
Rinsing Hold	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	■	■	■	■	■	■	■	■	■	■	▨	▨	▨	▨	▨	╳	╳	╳	╳	About 39
Spin	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	■	■	■	■	■	About 17
Washing + Rinsing	▨	8 ▨	▨	▨	■	■	60 ■ 96	╳	╳	╳	■	■	■	■	■	■	■	■	■	■	■	■	▨	▨	▨	▨	■	╳	╳	■	■	About 2:31
Washing +Spin	▨	8 ▨	▨	▨	■	■	60 ■ 96	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	■	■	■	■	■	About 1:46
Rinsing + Spin	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	╳	■	■	■	■	■	■	■	■	■	■	▨	▨	▨	▨	■	■	■	■	■	About 55

* ■ Basic Cycle

* ▨ Optional Cycle

* Pre-Setting Time : Water Supply - 120 sec.
Drain - 60 sec.

* ~ Time for varies as the temperature or the amount of laundry.

* Basic time is minute in washing chart

* The actual program time can be varied with the load amount, water temperature or ambient temperature

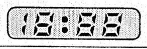
7. TROUBLE SHOOTING

7-1.BEFORE SVC CHECKING

- Be careful of electric shock or disconnecting the parts while trouble shooting.
- Voltage of each terminal in 220-240V~ and DC while applying an electric current.

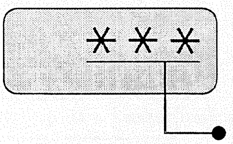
7-2.QC TEST MODE.

① Pressing Rinse, and Spin button simultaneously.
② Power supply ON with pressing upper two button.Then buzzer sound twice.
③ Press the Start/Pause button as follows.
[Press the Start/Pause button more 4 times until stop spinning]

Pressing number of [Start/Pause] button	Checking Point	Display Status
None	All lamps turn on	
1 time	Clockwise spin(right)	Drum rpm(About 40~52)
2 times	Low speed Spin	Drum rpm(About 55~65)
3 times	High speed Spin	Drum rpm(About 95~140)
4 times	Inlet valve for pre-wash operation	Water level frequency(25~65)
5 times	Inlet valve for main-wash operation	Water level frequency(25~65)
	Hot inlet valve in case of hot water fill	
6 times	Inlet valve for main-wash operation	Water level frequency(25~65)
7 times	Counterclockwise spin(left)	Drum rpm(About 40~52)
8 times	Heater is in operation for 3 sec.	Water temperature
9 times	Draining pump operation	Water level frequency
10 times	Auto off operation	

7-3.HOW TO KNOW THE WATER LEVEL FREQUENCY

＊ Press the Rinse and Spin button simultaneously.

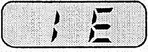
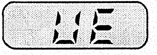
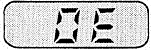
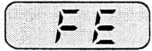
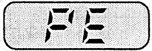
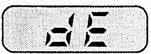
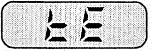


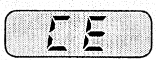
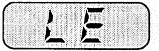
The digits means water level frequency(10^{-1} ㎑)

ex) 241 : Water level frequency = 241 × 10^{-1} ㎑
=24.1㎑

7-4.ERROR DISPLAY.

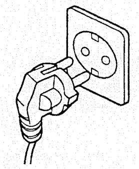
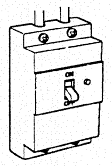
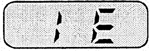
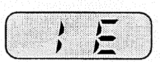
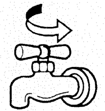
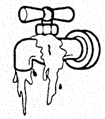
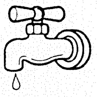
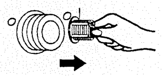
- If you press the Start/Pause button in error condition, any error except '**PE**' will disappear and the machine will change into pause status.
- In case of 『**PE**』, 『**tE**』, 『**dE**』, if the error is not resolved within 20 sec., and in case of other errors, if the error is not resolved within 4 min., power will be turned off automatically and the error only will be blinked. But in case of 『**FE**』, power will not be turned off.

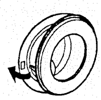
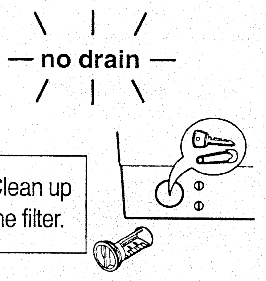
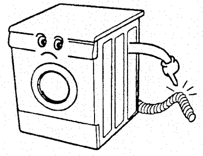
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR		o Water has not reached to the pre-set level within 8 min. since inlet valve operated or water has not reached to the normal level within 25 min.
2	IMBALANCE ERROR		o Load is too small. o The appliance is tilted. o Laundry is gathered to one side. o Non distributable things are put into the drum.
3	DRAIN ERROR		o Water has not drained enough within 10 min.
4	OVER FLOW ERROR		o Water is automatically being pumped out because too much water is in the tub.
5	SENSOR PRESSURE S/W ERROR		o The S. PRESSURE SWITCH ASSY is out of order.
6	DOOR OPEN ERROR		o The Start/Pause button is pressed with the door open. o The DOOR SWITCH ASSY is out of order.
7	HEATING ERROR		o The THERMISTOR is out of order.

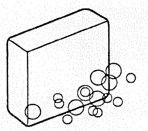
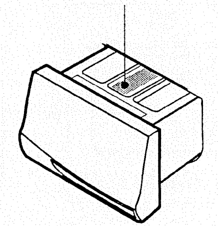
	ERROR	SYMPTOM	CAUSE
8	CURRENT ERROR		• MAIN PWB ASSY is out of order ☞ Replace the MAIN PWB ASSY • Winding in the STATOR ASSY is short-circuited. ☞ Replace the STATOR ASSY
9	LOCK ERROR		• The connector(3 pin, male, white) in the LEAD WIRE ASSY is not connected to the connector(3 pin, female, white) of STATOR ASSY. ☞ Reconnect or repair the connector • The electric contact between the connectors [3 pin, male, white in the LEAD WIRE ASSY and 4 pin, female, natural in the MAIN PWB ASSY is bad or unstable. ☞ Reconnect or repair the contact in the connector • The LEAD WIRE ASSY between the STATOR ASSY and MAIN PWB ASSY is cut(open circuited). ☞ Repair the damaged(open-circuited) the LEAD WIRE ASSY • The hall sensor is out of order/defective. ☞ Replace the STATOR ASSY

8. ERROR DIAGNOSIS AND CHECK LIST

8-1.DIAGNOSIS AND ANSWER FOR ABNORMAL OPERATION

SYMPTOM	**GUIDE FOR SERVICE CALL**
NO POWER	Is the power plug connected firmly to 220-240V~ outlet? YES Power failure? or Breaker opened? NO Visit to check  
Water inlet trouble 	Is "IE" displayed?  YES Is the tap opened?  YES Is the tap frozen?  NO Is the water supply shut-off?  NO Is filter in the inlet valve clogged with foreign material? YES → Clean the filter of inlet valve  NO Visit to check

SYMPTOM	GUIDE FOR SERVICE CALL
◦ DOOR OPEN ERROR dE	Did you press the Start/Pause button when the door is open? **YES** Close the door  **NO** Visit to check **< Check if the door switch is O.K >**
◦ DRAIN TROUBLE OE	Is " OE " displayed? **YES** Is the debris filter clogged with foreign material such as pin, coin and etc.? **YES** Clean up the filter.  **NO** Is the drain hose frozen with water, kinked or crushed?  **NO** Visit to check

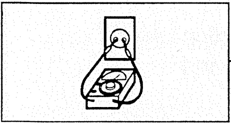
SYMPTOM	GUIDE FOR SERVICE CALL
◦ Suds overflow from the appliance. (In this condition, wash and spin do not operate normally)	Is low-sudsing detergent for the drum washing machine used? **YES** Is the proper amount of detergent used as recommended? **YES** Recommend to reduce the using amount of detergent.  ⁎ This appliance has the automatic suds sensing function which operates under much suds condition for good rinse and preventing overflow. ⁎ When much suds are sensed, suds removing function such as drain, water input and pause will operate without rotating the drum.
◦ No effect of softener	Is softener put in the correct compartment of the drawer? **YES** Is the drawer closed during wash? **YES** Is the softener cap clogged? **YES** Explain how to use softener  **< Clean the compartment for softener >**
FE PE tE CE LE	Visit to check

8-2.FAULT DIAGNOSIS AND TROUBLE SHOOTING

CAUTION

1. Be careful of electric shock or disconnecting the parts while trouble shooting.
2. First of all, check the connection of each part terminal with wiring diagram.
3. If you replace the MAIN PWB ASSY, Put in the connectors correctly.

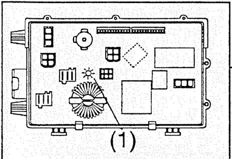
NO POWER



When measuring the voltage of the outlet, is the voltage AC 220-240V?

NO → Check the fuse?

YES

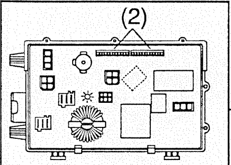


<MAIN PWB ASSY>

Is the led(1) on?

NO → Replace MAIN PWB ASSY

YES

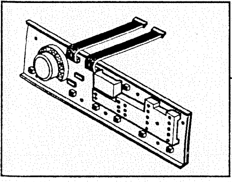


<MAIN PWB ASSY>

Is connector(2) disconnected or disassembled?

YES → Reconnect the PWB ASSY

NO



Is wire of the PWB ASSY disconnected?

YES → Reconnect the PWB ASSY

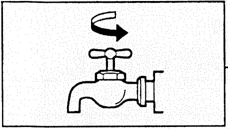
NO

Replace PWB ASSY

NO WATER SUPPLY

Is water supply shut-off?

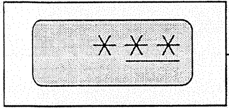
NO



Is the tap opened?

NO → Open the tap.

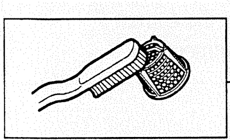
YES



When you press both Rinse button and Spin button simultaneously, is the water level frequency below 240?

YES → Check the AIR CHAMBER and the tube clogged with impurity.

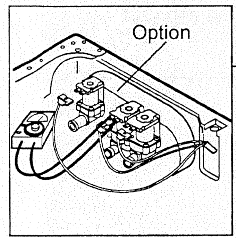
NO



Is the inlet valve filter clogged with impurity?

YES → Clean the filter.

NO



Is resistance between each terminal of INLET VALVE ASSY is 2~8 kΩ?

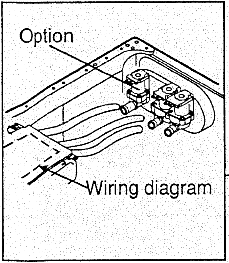
NO → Replace the INLET VALVE ASSY.

YES

Check the voltage of the inlet valve connector 220 - 240V~.
(Refer to 7-2 QC TEST MODE)

NO → Replace the MAIN PWB ASSY

DETERGENT DOES NOT FLOW IN



Is water supplied?

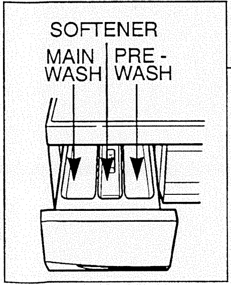
NO → Refer to 「NO WATER SUPPLY」

YES

Are replaceptacles correctly connected to the terminals of the INLET VALVE ASSY?

NO → Check the wiring on the dispenser.

YES



Is detergent put in the correct compartment of the drawer?

NO → Put the detergent in the correct position

PRE+MAIN ● | | ●

MAIN WASH ● | |

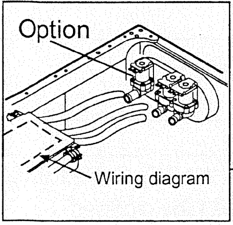
● : Detergent

YES

Is the detergent hardened?

YES → Clean the drawer.

SOFTENER DOES NOT FLOW IN

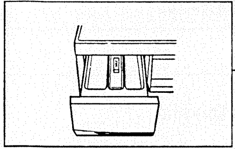


Is water supplied? — NO → Refer to 「NO WATER SUPPLY」

YES ↓

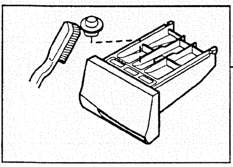
Are receptacles correctly connected to the terminals of the INLET VALVE ASSY? — NO → Check the wiring on the dispenser.

YES ↓



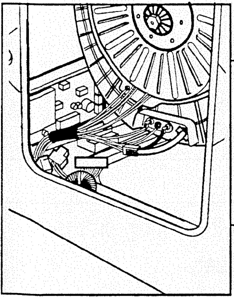
Is softener put in the correct compartment of the drawer? — NO → Put it in the correct compartment.

YES ↓



Is the softener cap clogged? — YES → Clean the cap and drawer.

ABNORMAL SOUND

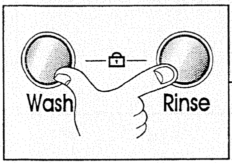


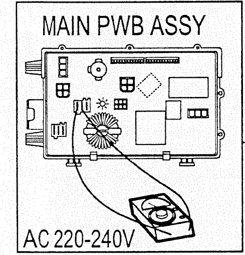
Is the motor bolt loosened? — YES → Fix the bolt tightly.

NO ↓

Is there friction noise from the motor? — YES → Replace the STATOR ASSY or ROTOR ASSY.

HEATING WITHOUT WATER





When pressing Rinse and Spin at the same time after draining, is the water level frequency 252 or more? When pressing Rinse, Spin buttons at the same time while wash, is the water level frequency between 230 - 243 ?

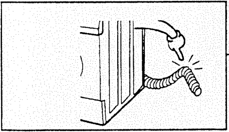
NO → Replace the S.PRESSURE SWITCH ASSY

YES ↓

Checking voltage between two pins as press the POWER button is the voltage 220 - 240V~?

YES → Replace the MAIN PWB ASSY

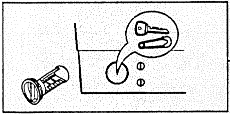
DRAIN MALFUNCTIONING



Is the drain hose twisted or frozen?

YES → Repair the DRAIN HOSE ASSY.

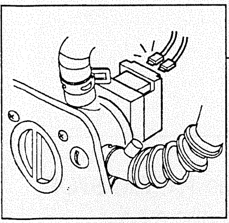
NO ↓



Is the impeller of the drain pump clogged?

YES → Remove foreign material.

NO ↓



Is the connector disconnected, disassembled?

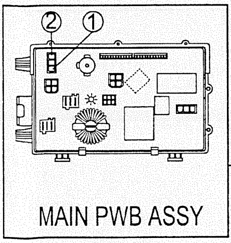
YES → Reconnect or repair the connector

NO ↓

Is the coil of the drain pump cut-off? (resistance of coil is 90~160Ω)

YES → Repair the DRAIN PUMP ASSY.

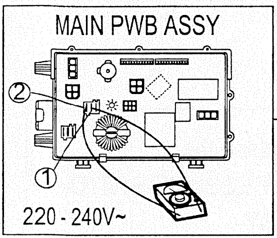
NO ↓



When checking voltage between connectors (①, ②)on spinning, is the voltage 220 - 240V~ as the figure?

NO → Repair the MAIN PWB ASSY.

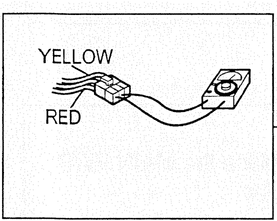
WASH HEATER TROUBLE



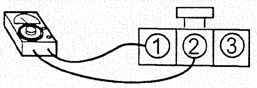
When checking the voltage between connectors (①, ②)during whites washing ,Is the voltage 220 - 240V ~?

NO → Replace the MAIN PWB ASSY

YES

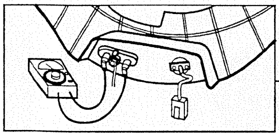


After power off,is the resistance of wire (RED-YELLOW) connectors between 10Ω~30Ω?



YES → Normal

NO

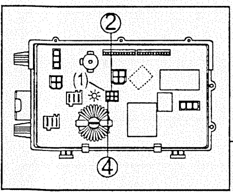


After power off and the heater terminal is disconnected, is the resistance 10~30Ω?

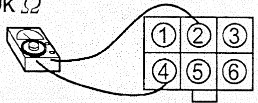
NO → Replace the HEATER ASSY

HEATING CONTINUOUSLY ABOVE THE SETTING WATER TEMPERATURE

MAIN PWB ASSY

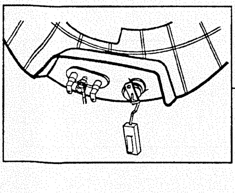


When disconnect the connector(1) on the, MAIN PWB ASSY is the resistance of the natural connectors [②(Blue/White), ④(Sky blue)] between 2.5kΩ to 180kΩ (105℃~0℃)?



NO → Replace the THERMISTOR (6322FR2046B)

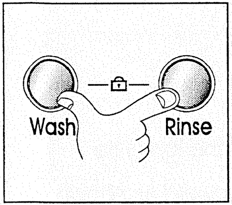
YES



When checking THERMISTOR on the tub is the THERMISTOR loosened above 2mm from the rubber?

YES → Push the THERMISTOR tightly to the rubber.

SPIN TROUBLE

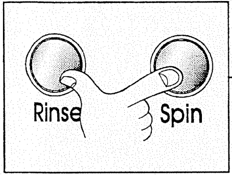


Check on the spinning, is the frequency of the water level 248 or more. The frequency can be checked by pressing the Rinse and Spin buttons at the same time on the program.

NO

Check the S.PRESSURE SWITCH ASSY or HOSE (Pressure). If the problem is on the S.PRESSURE SWITCH ASSY or the HOSE, replace the S.PRESSURE SWITCH ASSY or the HOSE.

YES

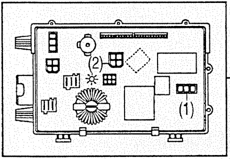


When pressing Rinse, Spin and POWER buttons at the same time after power off, press the Start/Pause button 2 times, is the drum low speed spin?

YES

Normal

NO

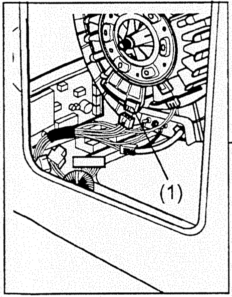


Is it disconnected, or disassembled?
[Red:3pin(1), NA:4pin(2)]

YES

Correct the connector.

NO



Check the motor connector, is the resistance of the terminal same as the figure?

MOTOR TERMINAL (1)

①	②	③

Resistance of terminal:
①~② / ②~③ / ③~① : About 5Ω~10Ω

NO

Replace the STATOR ASSY(4417FA1994E)

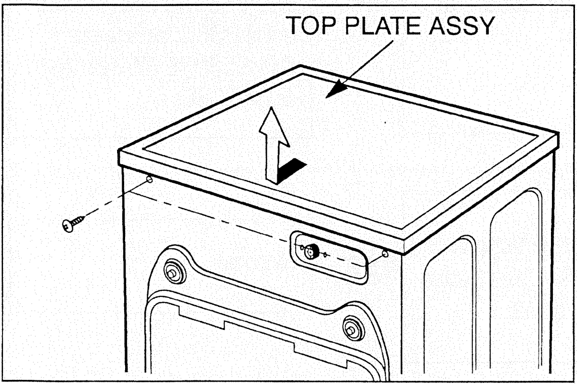
YES

Replace the MAIN PWB ASSY

9. DISASSEMBLY INSTRUCTIONS

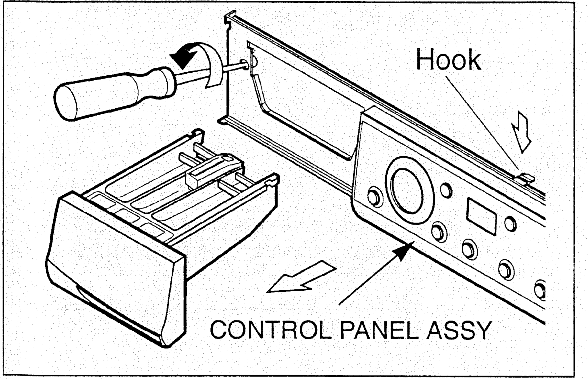
＊ Be sure to unplug the machine out of the outlet before disassembling and repairing the parts.

CONTROL PANEL ASSY



① Unscrew 2 screws on the back of the top plate.

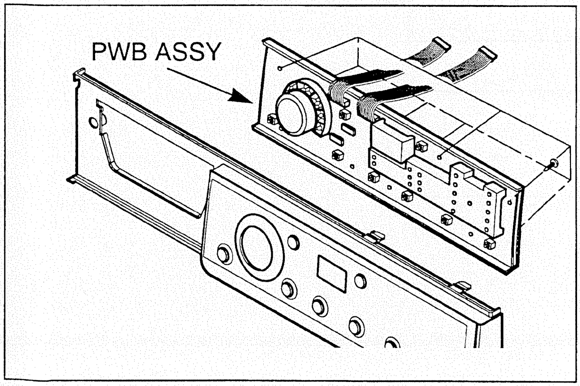
② Pull the top plate backward and upward as shown.



① Disconnect the ASSY connector.

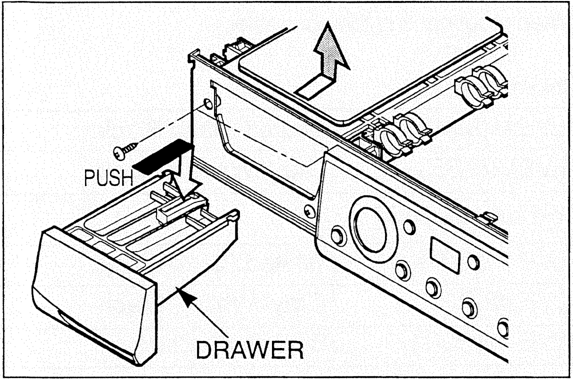
② Pull out the drawer and unscrew 3 screws.

③ Push 2 upper hooks down and pull the control panel.



① Disconnect the PWB ASSY from the control panel by unscrewing 9 screws.

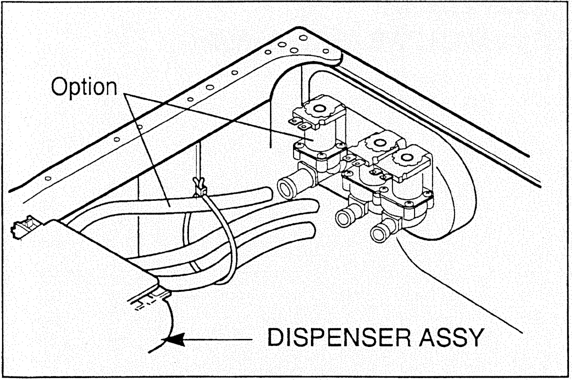
DISPENSER ASSY


PUSH
DRAWER

① Disassemble the TOP PLATE ASSY.

② Pull out the drawer slightly upward.

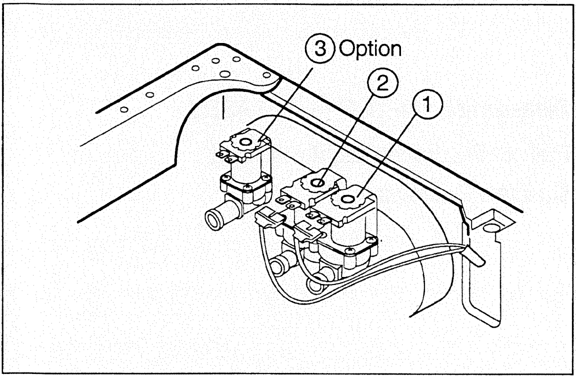
③ Unscrew 2 screws.


Option
DISPENSER ASSY

① Disassemble hose clamps and hoses

② Disassemble ventilation bellows and water inlet bellows from tub.

INLET VALVE ASSY



① Disconnect the wiring connector.
② Unscrew 2 screws from the back.

⁎ When reconnecting the connector

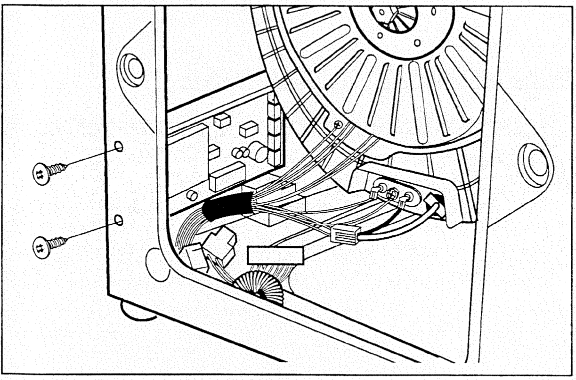
⁎ Cold only model

VALVE#1(MAIN)	Whited/Black-Black
VALVE#2(PRE)	Gray/ White - Black

⁎ Cold and Hot model

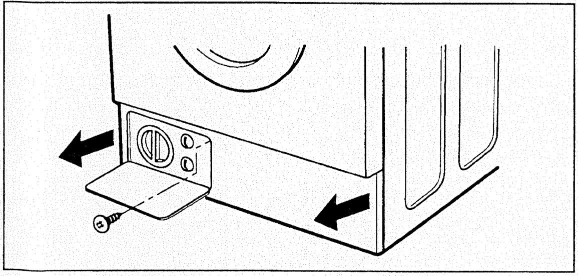
VALVE #1(MAIN)	Whited/Black-Black
VALVE #2(PRE)	Gray/ White - Black
VALVE #3(HOT)	Blue/Red - Black

MAIN PWB ASSY



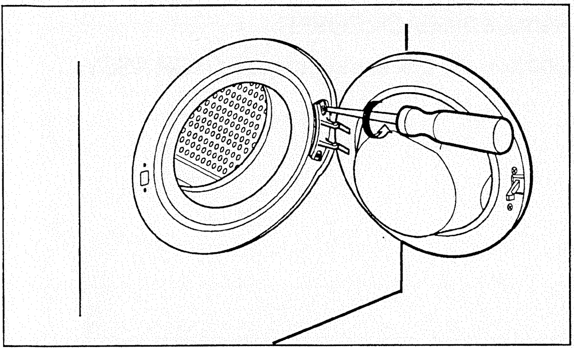
① The BACK COVER is removed.
② Unscrew 2 screws
③ Pull the MAIN PWB ASSY as shown.

LOWER COVER



① Open the lower cover CAP by using coin and pull out the lower cover in the arrow direction after a screw is unscrewed.

DOOR ASSY

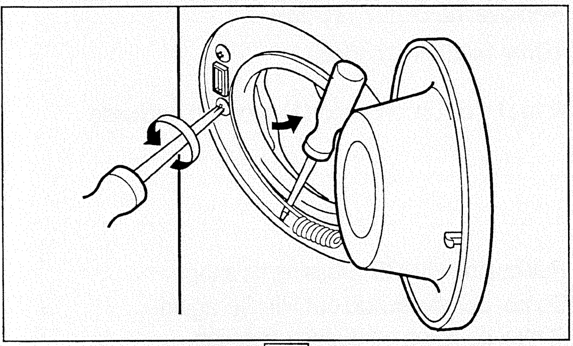


① Open the door completely.

② Remove the two screws from the hinge.

※ When removing the DOOR ASSY, it is necessary to hold the BRACKET that is inner of the CABINET COVER.

GASKET

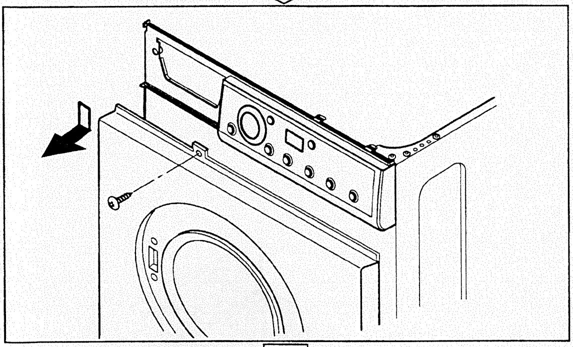


① Take apart the CLAMP ASSY(cabinet).

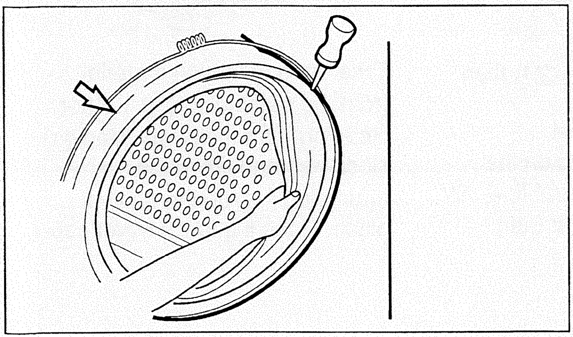
② Unscrew 2 screws from the CABINET COVER.

③ Open the lower cover cap and unscrew 1 screw inside

④ Take apart the LOWER COVER.



① Unscrew all the screws on the upper and lower sides of the CABINET COVER.

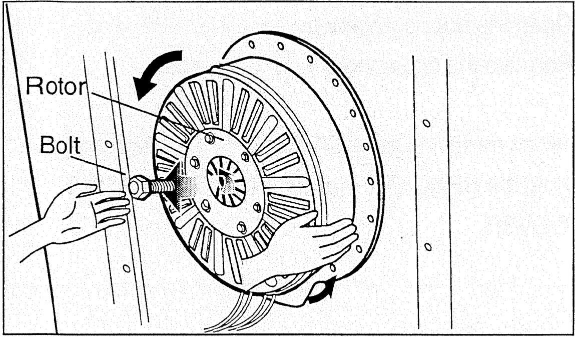


① Take apart the tub CLAMP ASSY

② Make sure that the drain hole of the GASKET is put beneath when reassembling the GASKET.

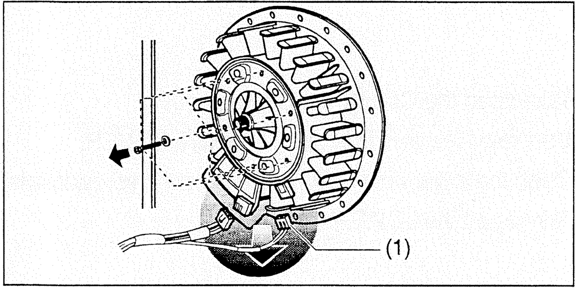
※Refer to the arrow mark on the TUB COVER.

ROTOR ASSY, STATOR ASSY, FRICTION DAMPER ASSY



(ROTOR ASSY)

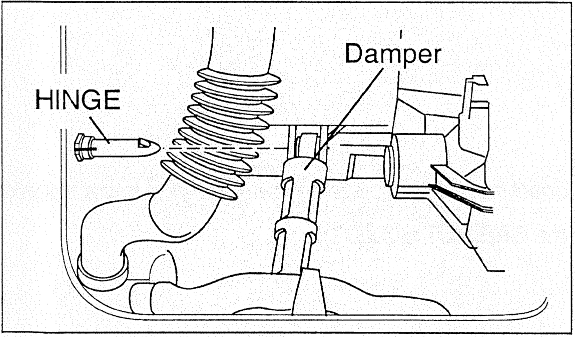
① Remove the BACK COVER.
② Unscrew the bolt to pull out the ROTOR ASSY.



(STATOR ASSY)

① Disconnect the wiring connector.
② Unscrew 6 bolts from the STATOR.
③ Remove the BODY FRAME.
(Only 1400 rpm models)

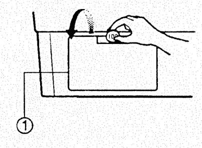
⁎ Note : Hook of connector(1) is on the backside



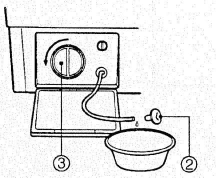
(FRICTION DAMPER ASSY)

① Pull out the HINGE pressing its snap.
② Do not use the pulled out HINGE again
It may be taken off during operation.

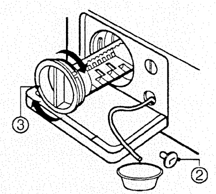
Clean the drain pump filter



Open the lower cover cap (①) by using coin.

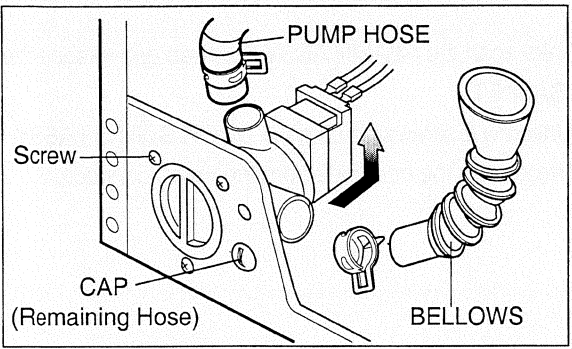


Unplug the drain plug (②), then the water flows out,
At this time use a vessel to prevent water flowing on the floor. If the water does not flow any more,turn the pump filter (③) open to the left.



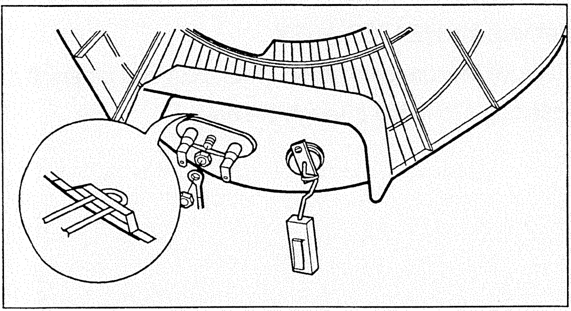
Take out any foreign material from the pump filter (③). After cleaning, turn the pump filter(③) clockwise and insert the drain plug (②)to the original place. close the lower cover cap.

DRAIN PUMP ASSY



① Remove PUMP HOSE.
② Remove BELLOWS..
③ Remove CAP(Remaining Hose.)
④ Disconnect the wiring.
⑤ Unscrew 3 screws
⑥ Remove the DRAIN PUMP ASSY.

HEATER ASSY

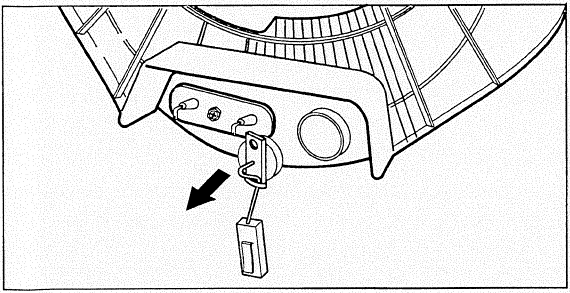


① Loosen the M6 heater nuts to pull out the HEATER ASSY.

CAUTION

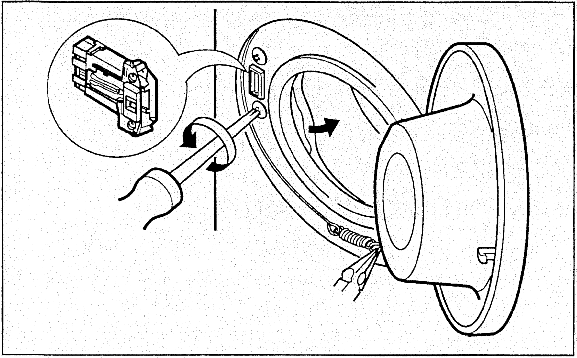
When mounting the HEATER ASSY be sure to insert the HEATER ASSY into the heater clip on the bottom of the tub.

THERMISTOR



① Pull it out by holding the THERMISTOR bracket.
⁎ If it is pulled by the wire, it may be broken.
② When mounting the THERMISTOR again, make sure that it is got back tight to the rubber.

SWITCH ASSY, DOOR LOCK

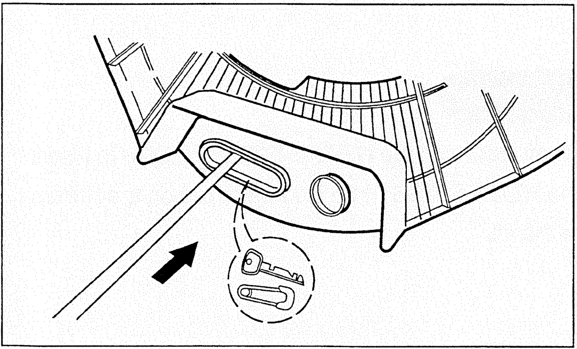


① Take apart the CLAMP ASSY (cabinet) and release the GASKET.

② Unscrew 2 screws holding the DOOR SWITCH ASSY.

③ Disconnect the door lock from the wiring connector.

WHEN FOREIGN MATERIAL IS STUCK BETWEEN DRUM AND TUB



① Remove the HEATER ASSY.

② Remove the foreign material (wire, coin and others) by inserting a long bar through the hole.